

REMARKS

Claims 1-30 are pending. Claims 1, 11, 21 and 30 have been amended.

Claims Rejections – 35 U.S.C. S.102

Claims 1-3, 8-13, 18-23 and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu et al (U.S. Patent No. 6,344,852). Zhu fails to teach or suggest “a binning engine for receiving the graphical objects, wherein the binning engine identifies and discards graphical objects that would not be viewable to a user prior to replicating graphical objects into binning memory areas” as claimed in claims 1, 11 and 21.

As noted in the specification on page 5, lines 2-14:

The present invention optimizes graphics performance during zone rendering by providing back face culling and degenerate object removal functions in the first pass binning process. By removing the back facing polygons and degenerate objects prior to replicating them into bins, subsequent per object operations are avoided for each replication of the objects within the bins.

In particular, the need to replicate back facing and degenerate objects into command structures that are binned is eliminated. Consequently, this reduces memory bandwidth requirements and the memory footprint required for the bin command structures, and eliminates the output of associated state-setting commands that would otherwise be required to properly render the discarded objects. Processing of such objects during the rendering phase is also eliminated. In particular, reading object descriptions from the bin command structures is avoided thus reducing memory bandwidth requirements.

Zhu fails to teach or suggest discarding graphical objects that would not be viewable to a user prior to replicating graphical objects into binning memory areas. The passages cited by the Examiner to support the rejection do not distinguish between objects that are not viewable to a user or discarding them prior to replication, as claimed in the invention.

Claim Rejections – 35 U.S.C. §103(a)

The Examiner rejected claims 2-10, 12-20 and 22-30 under 35 U.S.C. 103(a) as being unpatentable by Zhu (U.S. Patent No. 6,344,852) in view of Deolaliker (U.S. Patent No. 5,898,437). Applicant respectfully disagrees with the Examiner's rejection for the same reasons noted above. In view of the above, it is respectfully requested the claims are allowable over Zhu and Deolaliker, alone or in combination.



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Claim Objections

Misnumbered claims 20 (last claim) has been renumbered to 30 per the Examiner's suggestion. Also, renumbered claim 30 has been amended to depend from claim 21, rather than claim 11.

CONCLUSION

In view of the foregoing, it is respectfully asserted that all of the claims pending in this patent application are in condition for allowance.

Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666.

If the Examiner has any questions, he is invited to contact the undersigned at (310) 252-7605. Reconsideration of this patent application and early allowance of all the claims is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, Post Office Box 1450, Alexandria, Virginia 22313-1450 on December 31, 2003.

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